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ABSTRACT

An exploratory study was conducted to determine attitudes and/or semantic structures toward college related (Professors, Name of Institution, Afro-American Courses) and personal (Black Students, White Students, Me-Myself) stimuli within and between 2 dissimilar, all male, high-risk, Afro-American College groups at 2 institutions (Temple University, N=16; Glassboro State College, N=23). Osgood's semantic differential technique was applied to both groups. Findings suggest that there was a great deal of commonality between the 2 groups in terms of their attitudes toward the stimuli. There was no significant institutional or dimensional main effects, but stimuli main effect reached significance. Post Hoc tests were used to look at differences. Black pride and identification were the strongest stimuli. (Author)

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ABSTRACT

An exploratory study was conducted to determine attitudes and/or semantic structures toward college related (Professors, Name of Institution, Afro-American courses) and personal (Black Students, White Students, Me-Myself) stimuli within and between two dissimilar all male high risk Afro-American College groups at two institutions (Temple University, N=16; Glassboro State College, N=23). Osgood's semantic differential technique was applied to both groups.

Findings suggest that there was a great deal of commonality between the two groups in terms of their attitudes toward the stimuli. There were no significant Institutional or Dimensional main effects, but Stimuli main effect reached significance. Post Hoc tests were used to look at differences. Black pride and identification were the strongest stimuli.

Attitudes Toward Selected Stimuli: Commonality and Differences Within and Between Two Dissimilar High Risk Black College Groups[1]

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This study was exploratory in its thrust. It was conducted to determine attitudes and/or semantic structures toward college related and personal stimuli within two dissimilar "high risk" Black college groups at two different institutions. Another objective of the study was to determine if there existed any commonality in terms of attitudes between the two groups. Knowledge about students who have traditionally been excluded from higher education is needed for both the students involved as well as for the institutions. Many institutions of higher education are now moving into open-admissions as well as recruitment of students from minority populations. Even in medical schools there have been changes. Weidlein (15) described the large increase of minority students in medical education for 1971-72. Many students from minority populations are included in open- and special (high risk) admissions programs. Open-admissions has had trouble with drop-out rates; Seman (14) reported that one probable cause for a large drop-out rate (35.8%) of open-admission students in the City University of

New York during the first year was a negative self-image. Dodson (5) doubts that the perception of self and one's relationship to power can be divorced. Conflict among self-identification, Black Power, and help from the "establisment" have also created problems for many Black students in special admissions programs (Egerton, 7). This study was to focus on attitudes towards selected stimuli facing Afro-American students in two special admissions programs.

Groups and Methodology

The Groups

Participants in two special admissions programs for Afro-Americans, in different four year institutions of higher learning, were used. The two institutions involved were: Temple University in Philadelphia and Glassboro State College in Southern New Jersey (they are twenty-three miles apart). The Temple group (Veterans in Public Service) was comprised of all males, while the Glassboro group (King Scholars) was co-educational (only the males were used in this study).

The two high risk Afro-American college groups were similar in that all subjects in both groups: had been in their respective institutes for at least one semester (15 weeks) in a special program; all were males; had been raised and lived in Black ghettos in the urban Northeast section of the United States (Philadelphia or the urban communities of New Jersey); did not have the traditional educational and social

background of the usual college student (i.e., college preparatory courses in high school, middle class socioeconomic status, S.A.T. scores, etc.) hence causing them to be classified as high risk students by their respective institutions.

The two groups were significantly dissimilar. The Temple University group (N=16) was composed of all veterans (mean age of 28.6), all but three were married, most had children to support, lived off campus in Philadelphia, had selected a specific College of Education curriculum to follow (elementary education), worked in the public schools for pay as part of their program, and received benefits from the G.I. Bill. The Glassboro State College group (N=23) was composed of non-veterans (mean age of 18.3), none were married, they all received a small stipend under a special grant from the State of New Jersey, they lived on campus, were not formally committed to a particular program (although an Arts and Science College, the institution functions primarily in the area of teacher preparation), and they were all raised and educated in one of the many urban communities in New Jersey.

Methodology

Subjects were administered a semantic differential composed of six stimuli: Black Students, Professors, Name of Institution, Afro-American Courses, White Students, Me-Myself. Each stimuli was rated on each of twelve scales measuring these dimensions: Evaluation, Potency, and Activity. (Osgood, et al., 13). Four scales were used to measure a particular dimension.

Thus the stimulus me-myself was rated twelve times, with four scales reflecting the potency dimension, another four reflecting the evaluative dimension, and the remaining four scales reflecting the activity dimension. The dimensions and scales are presented in Table 1.

Insert Table 1 about here

Eight response options corresponding to the values one through four and six through nine were used for each scale, while missing responses were given the neutral value of five. An individual score was determined by summing the ratings over the four scales that were used to measure a particular dimension (Anastasi, 1). The order and polarity of the scales as well as the order of dimensions were randomized within the restrictions that a dimension occurred once in every sequence of three scales and the polarity was balanced for each dimension. Means and standard deviations generated by the semantic differential approach are found in Table 2.

Insert Table 2 about here

The college related stimuli were chosen using the judgments of the author, who was then director of the Temple high risk program, the director of the Glassboro program, and a consultant. To avoid order effects, six page sequences were assembled and

distributed for administration in approximately equal amounts. The study was an extension of research reported by Kapel and Wexler (11) in 1970 and followed their procedures and methodology. Based on past use of the semantic differential (Geis, 9; Kubiniec, 12; Coyne & Hohman, 3), it was assumed that the data collected from each of the two groups was valid and reliable.

The data was initially analyzed by using the independent variables, in the general linear hypothesis model (BMD05V), as specifying analysis-of-variance classifications (Dixon, 4: 543-558). The independent variables were: Institution enrolled (group), dimensions, and stimuli. Selected Post Hoc tests, following a significant F (Main Effects and Interactions), were conducted; thus, following the suggestions of Games (8) that only contrasts that make experimental sense should be made. The general linear hypothesis with contrasts-BMD06V (Dixon,4: 558-571) was used to estimate and test the statistical significance of the parameters which occurred in the general linear hypothesis model; it tested the statistical significance of any real valued linear function of the parameters.

Results and Discussion

The results of the initial analysis are listed in Tables 3 and 4. The residual sum of squares is derived from:

R_h = Total SS—SS explained by hypothesis

The <u>degree of freedom of residuals</u> is:

$$df_h = n - \text{Rank}\ (X_h^1\ X_L)$$

The <u>F-test</u> is:

$$F_h = \left[\frac{df_{h_2}}{df_h - df_{h_2}}\right] X \left[\frac{R_h - R_{h_2}}{R_{h_2}}\right]$$

where R_h = Restricted Model's residual SS

R_{h_2} = Unrestricted Model's residual SS

(Dixon, 4: 549)

The formula of the F-test used by Dixon is similar to the formula used by Bottenberg and Ward (2) to arrive at the F statistic (which is Snedecor's F ratio) used in conjunction with analysis-of-variance techniques.

Insert Tables 3 and 4 about here

The analyses of the data indicated that there were no significant differences between the Temple and Glassboro groups (Institutional main effect), nor were there any significant Dimensional main effects (Evaluation, Potency, and Activity). The Stimuli main effect (Black Students, Professors, Institution, Afro-American courses, White Students, Me-Myself) reached the .01 level of significance. There were significant interaction

effects: Institution X Stimuli ($p < .05$), Dimension X Stimuli ($p < .01$). There were no significant interactions: Institutions X Dimensions; Instituions X Dimension X Stimuli.

To gain a more definitive view of the results than that permitted under the overall analysis, the "General Linear Hypotheses with Contrasts" program that could test the hypothesis $B_1 = B_2 = 0$ was used (Dixon, 4); however, higher order simultaneous tests could not be made with the program.

The program generates linear function estimates and standard errors of estimates for each planned contrast.

$$t = \frac{\text{Linear Function Estimate}}{\text{Standard Error of Estimate}}$$ was used

to determine significant contrasts (i.e., null hypothesis that $B_{y_1} = B_{y_2}$ is true) as suggested by Edwards (6: 254). Due to the number of contrasts calculated, individual t ratios will not be reported, rather the appropriate means and significance levels appear in Table 5 to 9. Because there were many paired comparisons calculated, subsequently increasing chance significance, patterns of significance were considered meaningful in this study.

Post Hoc testing (for Stimuli main effect) indicated that subjects viewed Black Students and Me-Myself as significantly higher than all other stimuli, with Institution and White Students as being significantly lower than the other stimuli. There were no significant differences between the following pairs: Institution - White Students; Professors - Afro-American Courses; and Black Students - Me-Myself (Table 5).

Insert Table 5 about here

There appeared to be greater heterogenity among stimuli (across dimensions) for Glassboro students than for Temple students in this study (Table 6). Black Student Stimuli was significantly higher than all stimuli, except Me-Myself (which was only significantly higher than White students) for Temple students. Within the Glassboro group, Black Student Stimuli was significantly higher than all others, Me-Myself significantly higher than Professors, Institution, and White Students, Professor significantly higher than Institution and White Students, and Afro-American Courses greater than White Students and Institutions. It was also found that Temple University students viewed their institution significantly higher than Glassboro students ($p < .05$); all other comparisons, found in Table 7, between the two groups on Stimuli (Institution X Stimuli) were non-significant. It appears that the difference in heterogenity among stimuli within the groups (Institution X Stimuli Interaction), rather than between the groups, generated the interaction found.

Insert Tables 6 and 7 about here

Although not all possible contrasts were examined, for there would be little educational meaning in certain combinations, it was apparent that the Dimension X Stimuli interaction,

across Temple and Glassboro, was generated by more significant differences among stimuli in the Evaluation Dimension than in Potency and in Activity (Table 8). Centroid membership (high vs. low) were different for the Dimensions. That is, Black Students, Afro-American Courses, and Me-Myself appeared to be clustered together and were higher in rating than Professors, which in turn was higher than the Institution and White Students cluster in the Evaluative Dimension. The Potency Dimension clusters from high (Black Students, Me-Myself, Professors), middle (Institution), to low (White Students and Afro-American Courses). The Activity Dimension appeared to have only two clusters - Black Students, Me-Myself, Afro-American Courses high and Professors, White Students, and Institution low. It is of interest that White Students were consistantly rated low within each dimension. There were some significant differences between Dimension on certain identical stimuli in Table 9, but evidently not enough stimuli were different to cause a main effect difference on Dimensions. Differences between non-identical stimuli from one dimension to another were not tested because they would add little meaning to the intent of the study and be non-interpretive.

Insert Tables 8 and 9 about here

One major conclusion is that a great deal of similarity exists between both groups in terms of their attitudes towards

college related and personal stimuli. The veterans viewed their institution more favorably than the non-veterans; they also tended to react more similarily to stimuli than did the non-veterans.

Both groups reflected a pride in themselves (self-concept) and a strong feeling towards Black identity as well as a low rating for White Students within each dimension. Institution attended was also not rated very high; Afro-American courses were not considered very potent, although they were considered highly active and acceptable. Professors were only considered as having influence, but not active or highly acceptable/having worth. It is apparent that the subjects in this study have a low regard for White Students, one might assume that feelings for the institution and professors reflect the subjects' identification of these stimuli with the white dominated society within which these students live. The low regard for the influence of Afro-American courses might reflect their experiences with such courses, vis-a-vis lectures, historical approach, non-relevance to their needs, or it might reflect their impatience with a lack of change and view other methods rather than Afro-American courses as change agents.

This study had educational importance in that, for immediate needs, it gave the directors of the two programs and their counselors information on their students in the affective domain areas. The more significant importance is the comparison

of two dissimilar high risk college groups. As more and more colleges and universities move into open-admissions and with more minority representation in student bodies, these institutions will be faced with problems (counseling and non-counseling) that go beyond the traditional college environment and expectations. More studies are needed to begin to build a body of knowledge about different groups, and to begin to look at whether commonalities across groups exist or whether each group is distinctive. If commonalities do exist, then we must: identify them; build on their strengths; look for solutions in problem areas; prevent damage through our ignorance; and pool our resources, so that the revolving door situation in higher education, as described by Gordon (10), will not become a reality for high risk students. This study attempted to look at two dissimilar groups to identify similarities and differences. As indicated, this was an exploratory study, it needs to be replicated under different conditions and with larger groups.

Table 1

Dimension and Scales used in the Semantic Differential

Dimension	Scales[1]
Evaluation	Unfair - Fair (+)
	Cruel - Kind (+)
	Sweet (+) - Bitter
	Profane - Sacred (+)
Potency	Hard (+) - Soft
	Heavy (+) - Light
	Small - Large (+)
	Rugged (+) - Delicate
Activity	Dull - Sharp (+)
	Angular (+) - Rounded
	Green - Red (+)
	Hot (+) - Cold

[1]a plus (+) denotes high scoring direction on indicated dimension

Table 2

Means and Standard Deviations for Stimuli per Dimension

Dimension and Group			Black Students	Professors	Afro-Amer. Courses	Institution	White Students	Me-Myself
Evaluation	Temple (N=16)	Mean	22.750	19.875	20.313	17.438	19.750	22.063
		S.D.	4.203	4.674	6.415	5.240	5.285	6.708
	Glassboro (N=23)	Mean	26.652	20.522	24.130	16.759	14.130	25.478
		S.D.	4.499	6.947	6.518	7.387	5.911	5.877
Potency	Temple (N=16)	Mean	24.125	21.000	19.500	22.938	17.125	24.313
		S.D.	5.045	2.733	7.005	4.946	6.054	5.449
	Glassboro (N=23)	Mean	25.391	23.826	18.087	19.261	18.000	22.739
		S.D.	4.989	6.906	8.393	6.268	6.564	7.331
Activity	Temple (N=16)	Mean	24.125	18.375	21.500	18.000	18.125	23.000
		S.D.	3.931	4.080	5.586	4.258	4.349	4.747
	Glassboro (N=23)	Mean	24.869	19.783	23.087	16.043	17.957	22.652
		S.D.	4.137	4.786	4.963	4.666	4.467	4.996

Table 3

Sums of Squares Explained by Hypotheses

Hypotheses	SS
Error	315,264.905
Institutions (1)	315,251.614
Dimension (2)	315,199.682
Stimuli (3)	310,957.233
Interactions	
1 X 2	315,224.189
1 X 3	314,834.151
2 X 3	314,369.878
1 X 2 X 3	314,859.037

Table 4

Estimates of Coefficients

Hypothesis	Residual Sums of Squares	d.f. of Residuals	F tests	d.f. of F tests	p
Total	336,778.000	702			
Error	21,513.095	667			
Institutions (1)	21,526.386	668	0.412	1,667	n.s.
Dimension (2)	21,578.318	669	1.011	2,667	n.s.
Stimuli (3)	25,820.767	672	26.711	5,667	<.01
Interactions					
1 X 2	21,553.811	669	0.631	2,667	n.s.
1 X 3	21,943.849	672	2.671	5,667	<.05
2 X 3	22,408.122	676	3.083	9.667	<.01
1 X 2 X 3	21,918.963	677	1.258	10,667	n.s.

Table 5

Matrix of Significance Levels of Paired Comparisons
Within Stimuli Main Effect

	Stimuli						
Stimuli	BS	P	I	A	W	M-M	Mean
Black Students(BS)	—	.01(BS)[1]	.01(BS)	.01(BS)	.01(BS)	n.s.	24.652
Professors(P)		—	.01(P)	n.s.	.01(P)	.01(M-M)	20.563
Institution(I)			—	.01(A)	n.s.	.01(M-M)	18.406
Afro-American Courses (A)				—	.01(A)	.01(M-M)	21.103
White Students(W)					—	.01(M-M)	17.514
Me-Myself(M-M)						—	23.384

[1]Indicates p level as well as stimuli that is significantly greater.

Table 6

Matrix of Significance Levels of Paired Comparisons of
Institution X Stimuli Interaction
(Within Institutions)

	Stimuli						
Stimuli	BS	P	I	A	W	M-M	Mean
			Temple (Across Dimensions)				
Black Students(BS)	—	.01(BS)[1]	.01(BS)	.01(BS)	.01(BS)	n.s.	23.666
Professors(P)		—	n.s.	n.s.	n.s.	n.s.	19.750
Institutions(I)			—	n.s.	n.s.	n.s.	19.458
Afro-American Courses (A)				—	n.s.	n.s.	20.438
White Students(W)					—	.01(M-M)	18.333
Me-Myself(M-M)						—	23.125

Table 6 (cont'd)

Matrix of Significance Levels of Paired Comparisons of
Institution X Stimuli Interaction
(Within Institutions)

	Stimuli						
Stimuli	BS	P	I	A	W	M-M	Mean
			Glassboro (Across Dimensions)				
Black Students(BS)	—	.01(BS)	.01(BS)	.01(BS)	.01(BS)	.05(BS)	25.637
Professors(P)		—	.01(P)	n.s.	.01(P)	.05(M-M)	21.377
Institutions(I)			—	.01(A)	n.s.	.01(M-M)	17.388
Afro-American Courses (A)				—	.01(A)	n.s.	21.768
White Students(W)					—	.01(M-M)	16.696
Me-Myself(M-M)						—	23.623

[1]Indicates p level as well as stimuli that is significantly greater

Table 7

Matrix of Significance Levels of Paired Comparisons of
Institution X Stimuli Interaction
(Between Institutions)

	Stimuli					
Institutions	BS	P	I	A	W	M-M
Temple(T) Glassboro(G)	n.s.	n.s.	.05(T)[1]	n.s.	n.s.	n.s.

[1]Indicates p level as well as stimuli that is significantly greater

Table 8

Matrix of Significance Levels of Paired Comparisons of Dimension X Stimuli Interaction (Within Dimensions)

Stimuli	BS	P	I	A	W	M-M	Means
			Stimuli				
		Within Evaluation - Across Institutions					
Black Students(BS)	—	.01(BS)[1]	.01(BS)	n.s.	.01(BS)	n.s.	24.701
Professors(P)		—	.05(P)	n.s.	.01(P)	.01(M-M)	20.199
Institutions(I)			—	.01(A)	n.s.	.01(M-M)	17.098
Afro-American Courses (A)				—	.01(A)	n.s.	22.221
White Students(W)					—	.01(M-M)	16.940
Me-Myself(M-M)						—	23.770
		Within Potency - Across Institutions					
Black Students(BS)	—	n.s.	.01(BS)	.01(BS)	.01(BS)	n.s.	24.758
Professors(P)		—	n.s.	.01(P)	.01(P)	n.s.	22.413
Institutions(I)			—	n.s.	.01(I)	n.s.	21.099
Afro-American Courses (A)				—	n.s.	.01(M-M)	18.794
White Students(W)					—	.01(M-M)	17.563
Me-Myself(M-M)						—	23.526
		Within Activity - Across Institutions					
Black Students(BS)	—	.01(BS)	.01(BS)	n.s.	.01(BS)	n.s.	24.497
Professors(P)		—	n.s.	.05(A)	n.s.	.01(M-M)	19.079
Institutions(I)			—	.01(A)	n.s.	.01(M-M)	17.021
Afro-American Courses (A)				—	.01(A)	n.s.	22.293
White Students(W)					—	.01(M-M)	18.041
Me-Myself(M-M)						—	22.826

[1]Indicates p level as well as stimuli that is significantly greater

Table 9

Significance Levels of Paired Comparisons of Dimension X Stimuli Interaction (Between Dimensions - Across Institutions)

	Stimuli (Means)					
Dimensions	BS	P	I	A	W	M-M
Evaluative	24.701	20.199	17.098	22.221	16.940	23.770
Potency	24.758	22.413	21.099	18.794	17.563	23.526
p level	n.s.	n.s.	<.01	<.01	n.s.	n.s.
Evaluative	24.701	20.199	17.098	22.221	16.940	23.770
Activity	24.497	19.079	17.021	22.293	18.041	22.826
p level	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Potency	24.758	22.413	21.099	18.794	17.563	23.526
Activity	24.497	19.079	17.021	22.293	18.041	22.826
p level	n.s.	<.05	<.01	<.01	n.s.	n.s.

FOOTNOTES

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